

NATIONAL RECORDER.

Containing Essays upon subjects connected with Political Economy, Science, Literature, &c.; Papers read before the Agricultural Society of Philadelphia; a Record of passing Events; Selections from Foreign Magazines, &c. &c.

PUBLISHED, EVERY SATURDAY, BY LITTELL & HENRY, 74 S. SECOND STREET, AT FIVE DOLLARS PER ANN.

VOL. IV. Philadelphia, October 14, 1820. No. 16.

SATURDAY SERMON.

No. 8.

"She maketh fine linen and selleth it, and delivereth girdles unto the merchant."

Prov. xxxvi. 24.

While I was meditating upon a subject for my next sermon, the postboy brought me the following letter, to which I readily postpone my intended speculations. The wishes of the fair writer will be more effectually served by printing her note just as it was received, than by any observations of mine.

YORICK.

"Sir—A lady requests that you will take an early occasion to call the public attention to a kind of distress that is heavily felt even in the most prosperous period. I allude to the difficulty with which a woman dependent on her own exertions, can procure her daily bread; and more particularly to the constant anxiety and embarrassment felt by young women of cultivated understanding and refined feelings, who have unexpectedly been cast upon their own resources. This is not a misfortune, merely because it requires the exercise of unremitting industry: I would not cherish so sickly a sensibility as that which repines at such a necessity. But it is to be lamented that even the most incessant application is insufficient to insure a competence, and shelter the timid and inexperienced from the unhappiness incident to a familiar intercourse with the busy and selfish world.

"When the loss of a parent breaks up the circle that gathered round his table, and his sorrowing children are cast at once upon the world, with no time for the gradual return to ordinary feelings and common employments, how many things occur to give additional keenness to the pang of separation, and add new sorrow to the bitterness of death! The sons are comparatively fortunate, as an industrious and economical man can always command the comforts of life, and even in early youth there is but little difficulty in forming contracts by which present wants are sup-

VOL. IV.

plied, and the means of future prosperity are insured; but what resource is left for daughters, even for those who have been reared to habits of industrious usefulness? How can their own hands supply them with the means of preserving their former respectability and prospects in life? The employments that occupied their time when at home, cannot be sought elsewhere without degradation. Drawing and painting and music, which afford so convenient a resource for the distressed heroines of European romances, are useless here, and I know of no female occupation, except that of an instructor, which requires such a degree of mental ability as to enable the possessor to demand a high price for its exercise. This employment, however, cannot from its own nature be sufficient for many, and the young generally want the experience in life which is necessary to its successful prosecution; and it still remains highly desirable to afford to young women an opportunity of procuring for themselves a comfortable and respectable subsistence. It appears to me, that were it not for the great quantity of such things brought from abroad, *embroidery and ornamental needle work* would be a sufficient resource, and would be such a one as could be wished, inasmuch as this employment might be pursued in the quiet retirement so proper for a young woman, and so grateful to one unaccustomed to the active competition of the world. I once asked a member of Congress if a law could not be made to prevent the importation of such goods, but he explained to me the impropriety of national interference with the employments of industry. As Fashion, however, can make laws which are obeyed as implicitly as those of Congress, I wish you to make an appeal to the public, in the hope that it may be made a rule to use only American needle work, and thus add the merit of patriotism to the ornaments of taste. Ask the attention of the gay and the young to this subject, and exhort those who are qualified to lead the ranks of elegance, to give their influence to the promotion of a scheme

Q

which may be productive of such important benefits. The nation might gain no increase of riches from using domestic instead of foreign embroidery, but it would derive advantages far dearer to humanity—those of preserving unwounded and unsullied the tenderness and delicacy of its daughters, and softening to the helpless part of mankind the inevitable misfortunes of human life.” “H.”

Literature and Science.

The number of books in all the public libraries of Germany (including Austria and Prussia), amounts at least to four millions, without reckoning numerous pamphlets, periodical publications, dissertations and manuscripts.

Professor Goerg, of Leipsic, has proved it is said, very satisfactorily, that the vinegar of wood (pyrolignous acid) possesses all the antiseptic powers that have been ascribed to it. Anatomical preparations and other substances in which animal putrefaction commenced were completely restored by contact with this acid.

An animal body, in the opinion of this professor, may be readily converted into a mummy by this substance. The discovery of this acid is likely to become important to anatomy, domestic economy and medicine.

In the empire of Austria there are no less than twenty-three botanic gardens.

The unfolding of the Herculanian manuscripts is carried on with very considerable success, by a chemical process, under the direction of sir H. Davy. Of 1696 pieces which have been found, 88 have been happily unrolled, and the writing is very legible—319 are not legible, and 24 have been given as presents to foreign princes. There remains 1265, of which 100 or 120 will, it is hoped, be saved from oblivion.

A plant, called *Chininin*, by the natives of Peru, has been analyzed at Madrid. It proves to be an excellent febrifuge.

The number of new works and new impressions offered for sale at the fair of Leipsic last year, by 336 booksellers, amounted to 3194.

Senifelder, the original inventor of the lithographic art, (printing on stone) has contrived a substitute for the carbonate of lime used for that purpose, which has hi-

ther to been found in perfection only in Bavaria. He forms an artificial plate of stony substance attached to paper which he calls *Papyrographic*. It is said to possess great advantages. The machines are offered for sale at Paris, at 20 to 30 dollars each.

A new method of taking the lives of animals destined for the market, which greatly diminishes their sufferings, is now employed in London. It is effected by means of azotic gas. The meat, it is said, preserves its freshness better, has a more agreeable taste, and is more easily preserved. The greater number of the butchers are in the use of this method. [*Rev. Encyc. de Paris*, Jan. 1820.

An academy of sciences has been formed at Cadiz, which holds its sittings in one of the halls of the medical and surgical college.

At the village of Chateauneuf, in the department of the Lower Alps in France, a church was struck by three successive thunderbolts on the 11th of July, 1819, about 11 A. M. and during the installation of a new rector. The company were nearly all thrown down; many of them were driven out of the door; 82 were wounded, and 9 were killed. The priest who was celebrating mass was not affected, on account, it is believed, of his silken dress. All the dogs in the church were killed. The house was filled with black smoke.

Hot water is now carried through the streets of Paris, as well as other cities of Europe, for the purpose of supplying baths in private houses. It is transported in large casks, in which are stoves, so constructed that the heat is spent almost entirely in raising the temperature of the water. It is forced from the casks through pipes into the apartment required, and offered at a very moderate price.

M. Gonord, of Paris, has discovered the art of enlarging or diminishing the scale or size of an engraving on copper, without changing the plate. In other words, if an engraved plate of copper be given him, he can make use of it in such a manner as to obtain impressions of any size he pleases, either greater or less than those of the plate. From the plates of a folio atlas, for example, he can produce an atlas in octavo, and without changing the plates. He is able also, by the method he adopts, to make impressions upon various materials, as paper, metal, porcelain, marble, &c.

Steam navigation is now making a rapid progress in Great Britain. There are on the river Clyde 25 steam-boats, the largest of which has a burden of 91 tons, and the least of 35. Twelve of those boats pass between Glasgow and Grenock. There are four steam-boats on the Frith of Forth, which are said to carry during the summer 500 passengers daily.

Steam-boats also ply on the Tay, the Humber, the Trent, the Thames, the Dee, and the Mersey. Passengers are now conveyed by steam from Liverpool to Belfast and Glasgow, and from Dublin to Holyhead.

The Scotch are very locomotive. The number of passengers which were conveyed along the Forth and Clyde canal between Glasgow and Edinburgh, amounted in 1818, to 94,250; between Glasgow and Paisley, on the Ardrossan canal, 51,700; and from Glasgow along Monkland canal, 18,000.

Miscellany.

On the living Novelists.—"The author of *Waverley*."

Here are we in a bright and breathing world.
Wordsworth.

We esteem the noble productions which the great novelist of Scotland has poured forth with startling speed from his rich treasury, not only as multiplying the sources of delight to thousands, but as shedding the most genial influences on the taste and feeling of the people. These, with their fresh spirit of health, have counteracted the workings of that blasting spell by which the genius of lord Byron once threatened strangely to fascinate and debase the vast multitude of English readers. Men, seduced by their noble poet, had begun to pay homage to mere energy, to regard virtue as low and mean compared with lofty crime, and to think that high passion carried in itself a justification for its most fearful excesses. He inspired them with a feeling of diseased curiosity to know the secrets of dark bosoms, while he opened his own perturbed spirit to their gaze. His works, and those imported from Germany, tended to give to our imagination an introspective cast, to perplex it with metaphysical subtleties, and to render our poetry "sicklied o'er with the pale cast of thought." The genius of our country was thus in danger of being perverted from its purest uses, to become the minister of vain

philosophy, and the anatomist of polluted natures.

"The author of *Waverley*" (as he delights to be styled) has gently weaned it from its idols, and restored to it its warm youthful blood and human affections. Nothing can be more opposed to the gloom, the inward revolvings, and morbid speculations, which the world once seemed inclined to esteem as the sole prerogatives of the bard, than his exquisite creations. His persons are no shadowy abstractions—no personifications of a dogma—no portraits of the author varied in costume, but similar in features. With all their rich varieties of character, whether their heroical spirit touches on the godlike, or their wild eccentricities border on the farcical, they are men fashioned of human earth, and warm with human sympathies. He does not seek for the sublime in the mere intensity of burning passion, or for sources of enjoyment in those feverish gratifications which some would teach us to believe the only felicities worthy of high and impassioned souls. He writes everywhere with a keen and healthful relish for all the good things of life—constantly refreshes us where we least expected it, with a sense of that pleasure which is spread through the earth "to be caught in stray gifts by whoever will find," and brightens all things with the spirit of gladness. There is little of a meditative or retrospective cast in his works. Whatever age he chooses for his story lives before us; we become contemporaries of all his persons, and sharers in all their fortunes. Of all men who have ever written, excepting Shakspeare, he has perhaps the least of exclusiveness, the least of those feelings which keep men apart from their kind. He has his own predilections—and we love him the better for them even when they are not ours—but they never prevent him from grasping with cordial spirit all that is human. His tolerance is the most complete, for it extends to adverse bigotries; his love of enjoyment does not exclude the ascetic from his respect, nor does his fondness for hereditary rights and time-honoured institutions prevent his admiration of the fiery zeal of a sectary. His genius shines with an equal light on all—illuminating the vast hills of purple heath, the calm breast of the quiet water, and the rich masses of the grove—now gleaming with a sacred light on the distant towers of some old monastery, now softening the greenwood shade, now piercing the gloom of the rude cave where the old covenanter lies—free, and universal, and bounteous, as

the sun—and pouring its radiance with a like impartiality “upon a living and rejoicing world.”

We shall not attempt, in this slight sketch, to follow our author regularly through all his rich and varied creations; but shall rather consider his powers in general of natural description—of skill in the delineation of character—and of exciting high and poetical interest, by the gleams of his fancy, the tragic elevation of his scenes, and the fearful touches which he delights to borrow from the world of spirits.

In the vivid description of natural scenery our author is wholly without a rival, unless sir Walter Scott will dispute the pre-eminence with him; and, even then, we think the novelist would be found to surpass the bard. The free grace of nature has, of late, contributed little to the charm of our highest poetry. Lord Byron has always, in his reference to the majestic scenery of the universe, dealt rather in grand generalities than minute pictures—has used the turbulence of the elements as symbols of inward tempests, and sought the vast solitudes and deep tranquillity of nature, but to assuage the fevers of the soul. Wordsworth—who, amidst the contempt of the ignorant and of the worldly wise, has been gradually and silently moulding all the leading spirits of the age—has sought communion with nature, for other purposes than to describe her external forms. He has shed on all creation a sweet and consecrating radiance, far other than “the light of common day.” In his poetry the hills and streams appear, not as they are seen by vulgar eyes, but as the poet himself, in the holiness of his imagination, has arrayed them. They are peopled not with the shapes of old superstition, but with the rich shadows of the poet’s thought, the dreams of a glory that shall be. They are resonant—not with the voice of birds, or the soft whisperings of the breeze, but with the echoes from beyond the tomb. Their lowliest objects—a dwarf bush, an old stone, a daisy, or a smallcelandine—affect us with thoughts as deep, and inspire meditations as profound, as the loveliest scene of reposing beauty, or the wildest region of the mountains—because the heart of the poet is all in all—and the visible objects of his love are not dear to us for their own colours or forms, but for the sentiment which he has tenderly linked to them, and which they bring back upon our souls. We would not have this otherwise for all the romances in the world. But

it gladdens us to see the intrinsic claims of nature on our hearts asserted, and to feel that she is, for her own sake, worthy of deep love. It is not as the richest index of divine philosophy alone that she has a right to our affections; and, therefore, we rejoice that in our author she has found a votary to whom her works are in themselves “an appetite, a feeling, and a love,” and who finds, in their contemplation, “no need of a remoter charm, by thought supplied, or any interest unborrowed from the eye.” Every gentle swelling of the ground—every gleam of the water—every curve and rock of the shore—all varieties of the earth, from the vastest crag to the soft grass of the woodland walk, and all changes of the heaven from “morn to noon, from noon to latest eve,”—are placed before us in his works with a distinctness beyond that which the painter’s art can attain, while we seem to breathe the mountain air, or drink in the freshness of the vallies. We perceive the change in the landscape at every step of the delightful journey through which he guides us. Our recollection never confounds any one scene with another, although so many are laid in the same region, and are alike in general character. The soft lake among the hills, on which the cave of Donald Bean bordered—that near which the clan of the M’Gregors combated, and which closed in blue calmness over the body of Maurice—and that which encircled the castle of Julian Avenel—are distinct from each other in the imagination, as the loveliest scenes which we have corporally visited. What in softest beauty can exceed the description of the ruins of St. Ruth; in the lovely romantic the approach to the pass of Aberfoil; in varied lustre the winding shores of Ellangowan bay; in rude and dreary majesty the Highland scenes, where Ronald of the Mist lay hidden; and in terrific sublimity the rising of the sea on Fairport Sands, and the perils of sir Arthur Wardour and his daughter? Our author’s scenes of comparative barrenness are enchanting by the vividness of his details, and the fond delight with which he dwells on their redeeming features. We seem to know every little plot of green, every thicket of copsewood, and every turn and cascade of the stream in the vale of Glendearg, and to remember each low bush in the barren scene of the skirmish between the Covenanters and Claverhouse, as though we had been familiar with it in childhood. The descriptions of this author are manifestly rendered more vivid by the intense love which he bears to

his country—not only to her luxuriant and sublime scenery, but “her bare earth, and mountains bare, and grass in the green field.” He will scarcely leave a brook, a mountain ash, or a lichen on the rocks of her shore, without due honour. He may fitly be regarded as the genius of Scotland, who has given her a poetical interest, a vast place in the imagination, which may almost compensate for the loss of that political independence, the last struggling love for which he so nobly celebrates.

“The author of *Waverley*” is, however, chiefly distinguished by the number, the spirit, and the individuality of his characters. We know not, indeed, where to begin or to end with the vast crowd of their genial and noble shapes which come thronging on our memory. His ludicrous characters are dear to us, because they are seldom merely quaint or strange, the dry oddities of fancy, but have as genuine a kindred with humanity as the most gifted and enthusiastic of their fellows. The laughter which they excite is full of social sympathy, and we love them and our nature the better while we indulge it. Whose heart does not claim kindred with Baillie Nichol Jarvie, while the Glasgow weaver, without losing one of his nice peculiarities, kindles into honest warmth with his ledger in hand, and, in spite of broadcloth, grows almost romantic? In whom does a perception of the ludicrous for a moment injure the veneration which the brave, stout-hearted, and chivalrous baron of Bradwardine inspires? Who shares not in the fond enthusiasm of Oldbuck for black letter, in his eager and tremulous joy at grasping rare books at low prices, and in his discoveries of Roman camps and monuments, which we can hardly forgive Edie Ochiltree for disproving? Compared with these genial persons, the portraits of mere singularity—however inimitably finished—are harsh and cold; of these, indeed, the works of our author afford scarcely more than one signal example—captain Dalgetty—who is a mere piece of ingenious mechanism, like an automaton chess player, and with all his cleverness gives us little pleasure, for he excites as little sympathy. Almost all the persons of these novels, diversified as they are, are really endowed with some deep and elevating enthusiasm, which, whether breaking through eccentricities of manner, perverted by error, or mingled with crime, ever asserts the majesty of our nature, its deep affections, and undying powers. This is true not only of the divine enthusiasm of

Flora Mac Ivor—of the sweet heroism of Jeannie Deans—of the angelic tenderness and fortitude of Rebecca, but of the puritanic severities and awful zeal of Balfour of Burley, and the yet more frightful energy of Macbriar, equally ready to sacrifice a blameless youth, and to bear without shrinking the keenest of mortal agonies. In the fierce and hunted child of the mist—in the daring and reckless libertine Staunton—in the fearful Elspeth—in the vengeful wife of M’Gregor—are traits of wild and irregular greatness, fragments of might and grandeur, which show how noble and sacred a thing the heart of man is, in spite of its strangest debasements and perversions. How does the inimitable portrait of Claverhouse at first excite our hatred for that carelessness of human misery, that contempt for the life of his fellows, that cold hauteur and finished indifference which are so vividly depicted; and yet how does his mere soldierly enthusiasm redeem him at last, and almost persuade us that the honour and fame of such a man were cheaply purchased by a thousand lives! We can scarcely class Rob Roy among these mingled characters. He has nothing but the name and the fortune of an outlaw and a robber. He is, in truth, one of the noblest of heroes—a prince of the heather and the rock—whose very thirst for vengeance is tempered and harmonized by his fondness for the wild and lovely scenes of his home. Indeed, the influences of majestic scenery are to be perceived tinging the rudest minds which the author has made to expatiate amidst its solitudes. The passions even of Burley and of Macbriar, borrow a grace from the steep crags, the deep masses of shade, and the silent caves, among which they were nurtured, as the most rapid and perturbed stream which rushes through a wild and romantic region bears some reflection of noble imagery on its impetuous surface. To some of his less stern but unlettered personages, nature seems to have been a kindly instructor, nurturing high thoughts within them, and well supplying to them all the lack of written wisdom. The wild sublimity of Meg Merrilies is derived from her long converse with the glories of creation; the floating clouds have lent to her something of their grace; she has contemplated the rocks till her soul is firm as they, and gazed intently on the face of nature, until she has become half acquainted with its mysteries. The old king’s beadsman has not journeyed for years in vain among the hills and woods;

their beauty has sunk into his soul; and his days seem bound each to each by "natural piety" which he has learned among them.

That we think there is much of true poetical genius—much of that which softens, refines, and elevates humanity in the works of this author—may be inferred from our remarks on his power of embodying human character. The gleams of a soft and delicate fancy are tenderly cast over many of their scenes—heightening that which is already lovely, relieving the gloomy, and making even the thin blades of barren regions shine refreshingly on the eyes. We occasionally meet with a pure and pensive beauty, as in Pattieson's description of his sensations in his evening walks after the feverish drudgery of his school—with wild yet graceful fantasies, as in the songs of Davie Gellatly—or with visionary and ærial shapes, like the spirit of the House of Avenel. But the poetry of this author is, for the most part, of a far deeper cast—flowing from his intense consciousness of the mysteries of our nature, and constantly impressing on our minds the high sanctities and the moral destiny of our being. No one has ever made so impressive a use of the solemnities of life and death—of the awfulness which rests over the dying, and renders all their words and actions sacred; or of the fond retrospection, and the intense present enjoyment, snatched fearfully as if to secure it from fate, which are the peculiar blessings of a short and uncertain existence. Was ever the robustness of life—the mantling of the strong current of joyous blood—the high animation of health, spirits, and a stout heart, more vividly brought before the mind than in the description of Frank Kennedy's demeanour as he rides lustily forth, never to return?—or the fearful change from this hearty enjoyment of life to the chillness of mortality, more deeply impressed on the imagination than in all the minute examinations of the scene of his murder, the traces of the deadly contest, the last marks of the struggling footsteps, and the description of the corpse at the foot of the crag? Can a scene of mortality be conceived more fearful than that where Bertram in the den of Derncleugh, witnesses the last agonies of one over whom Mag Merrilies is chaunting her wild ditties to soothe the passage of the spirit? What a stupendous scene is that of the young fisher's funeral: the wretched father writhing in the contortions of agony—the mother silent in tender sorrow—the motley crew assembled to partake of strange festivity—and the old grandmother fear-

fully linking the living to the dead, now turning her wheel in apathy and unconsciousness—now drinking with frightful mirth to many "such merry meetings"—now, to the astonishment of the beholders rising to comfort her son, and intimating with horrid solemnity that there was more reason to mourn for her than for the departed! Equal in terrific power, is the view given us of the last confession and death of that "awful woman"—her intense perception of her long past guilt, with her deadness to all else—her yet quenchless hate to the object of her youthful vengeance, animating her frame with unearthly fire—her dying fancies that she is about to follow her mistress, and the broken images of old grandeur which flit before her as she perishes. These things are conceived in the highest spirit of tragedy, which makes life and death meet together—which exhibits humanity stripped of its accidents in all its depth and height—which impresses us at once with the victory of death, and of the eternity of those energies which it appears to subdue. There are also in these works, situations of human interest as intense as ever were invented—attended too with all that high apparel of the imagination, which renders the images of fear and anguish majestic. Such is that scene in the lone house after the defeat of the Covenanters, where Morton finds himself in the midst of a band of zealots, who regard him as given by God into their hands as a victim—where he is placed before the clock to gaze on the advances of the hand to the hour when he is to be slain, amidst the horrible devotion of his foes. The whole scene is, we think, without an equal in the conceptions which dramatic power has been able to embody. Its startling unexpectedness, yet its perfect probability to the imagination—the high tone and wild enthusiasm of character in the murderers; the sacrificial cast of their intended deed in their own raised and perverted thoughts; the fearful view given to the bodily senses of their prisoner of his remaining moments by the segment of the circle yet to be traversed by the finger of the clock before him, enable us to participate in the workings of his own dizzy soul, as he stands "awaiting till the sword destined to slay him crept out of its scabbard gradually, and, as it were by straw-breadths," and condemned to drink the bitterness of death "drop by drop," while his destined executioners seem "to alter their forms and features like the spectres in a feverish dream; their features become larger and their faces more disturbed;" until the beings

around him appear actually demons, the walls seem to drop with blood, and "the light tick of the clock thrills on his ear with such loud, painful distinctness, as if each sound were the prick of a bodkin inflicted on the naked nerve of the organ." The effect is even retrospectively heightened by the heroic deaths of the Covenanters immediately succeeding, which give a dignity and a consecration to their late terrific design. The trial and execution of Fergus Mac Ivor are also, in the most exalted sense of the term, tragical. They are not only of breathless interest from the external circumstances, nor of moral grandeur from the heroism of Fergus and his follower, but of poetic dignity from that power of imagination which renders for a time the rules of law sublime as well as fearful, and gives to all the formalities of a trial more than a judicial majesty. It is seldom, indeed, that the terrors of our author offend or shock us, because they are accompanied by that reconciling power which softens without breaking the current of our sympathies. But there are some few instances of unrelieved horror—or of anguish, which overmasters fantasy—as the strangling of Glossin by Dirk Hatteraich, the administering of the torture to Macbriar, and the bloody bridal of Lammermuir. If we compare these with the terrors of Burley in his cave—where, with his naked sword in one hand, and his Bible in the other, he wrestles with his own remorse, believing it, in the spirit of his faith, a fiend of Satan—and with the sinking of Ravenswood in the sands, we shall feel how the grandeur of religious thought in the first instance, and the stately scenery of nature and the air of the supernatural in the last, ennoble agony, and render horrors grateful to the soul.

We must not pass over, without due acknowledgment, the power of our author in the description of battles, as exhibited in his pictures of the engagement at Preston Pans; of the first skirmish with the Covenanters, in which they overcome Claverhouse; and of the battle in which they were, in turn, defeated. The art by which he contrives at once to give the mortal contest in all its breadth and vastness—to present it to us in the noblest masses; yet to make us spectators of each individual circumstance of interest in the field, may excite the envy of a painter. We know of nothing resembling these delineations in history or romance, except the descriptions given by Thucydides of the blockade of Plataea, of the Corcyraean massacres, of the

attempt to retake Epipolæ in the night, of the great naval action before Syracuse, of all the romantic events of the Sicilian war, and the varied miseries of the Athenian army in their retreat under Nicias. In the life and spirit, the minuteness of the details—in the intermingling of allusions to the scenery of the contests—and in the general fervour breathed over the whole, there is a remarkable resemblance between these passages of the Greek historian, and the narratives of Scottish contests by the author of Waverley. There is, too, the same patriotic zeal in both; though the feeling in the former is of a more awful and melancholy cast, and that of the latter more light and cheerful. The Scottish novelist may, like the noblest of historians, boast that he has given to his country "*Κτήμα ες αἰεί*"—a possession for ever!

It remains that we should say a word on the use made of the supernatural in these romances. There is, in the mode of its enjoyment, more of gusto—more that approaches to an actual belief in its wonders, than in the works of any other author of these incredulous times. Even Shakspeare himself, in his remote age, does not appear to have drank in so deeply the spirit of superstition as our novelist of the nineteenth century. He treats, indeed, all the fantasies of his countrymen with that gentle spirit of allowance and fond regard with which he always touches on human emotions. But he does not seem to have heartily partaken in them as awful realities. His witches have power to excite wonder, but little to chill men's blood. Ariel, the visions of Prospero's enchanted isle, the "quaint fairies and the dapper elves" of the *Midsummer Night's Dream*, glitter on the fancy, in a thousand shapes of dainty loveliness, but never affect us otherwise than as creations of the poet's brain. Even the ghost in *Hamlet* does not appal us half so fearfully as many a homely tale which has nothing to recommend it but the earnest belief of its tremulous reciter. There is little magic in the web of life, notwithstanding all the variety of its shades, as Shakspeare has drawn it. Not so is it with our author; his spells have manifest hold on himself, and, therefore, they are very potent with the spirits of his readers. No prophetic intimation in his works is ever suffered to fail. The spirit which appears to Fergus—the astronomical predictions of Guy Mannering—the eloquent curses, and more eloquent blessings, of Meg Merrilies—the dying denunciation of Mucklewrath—the old prophecy in the *Bride of Lammermuir*

—all are fulfilled to the very letter. The high and joyous spirits of Kennedy are observed by one of the bystanders as intimations of his speedy fate. We are far from disapproving of these touches of the superhuman, for they are made to blend harmoniously with the freshest hues of life, and, without destroying its native colouring, give to it a more solemn tinge. But we cannot extend our indulgence to the seer in the Legend of Montrose, or the Lady of Avenel in the Monastery; where the spirits of another world do not cast their shadowings on this, but stalk forth in open light, and “in form as palpable” as any of the mortal characters. In works of passion, fairies and ghosts can scarcely be “simple products of the common day,” without destroying all harmony in our perceptions, and bringing the whole into discredit with the imagination as well as the feelings. Fairy tales are among the most exquisite things in the world, and so are delineations of humanity like those of our author; but they can never be blended without debasing the former into chill substances, or refining the latter into airy nothings.

We shall avoid the fruitless task of dwelling on the defects of this author—on the general insipidity of his lovers—on the want of skill in the development of his plots—on the clumsiness of his prefatory introductions—or the impotence of many of his conclusions. He has done his country and his nature no ordinary service. He has brought romance almost into our own times, and made the nobleness of humanity familiar to our daily thoughts. He has enriched history to us by opening such varied and delicious vistas to our gaze, beneath the range of its loftier events and more public characters. May his intellectual treasury prove exhaustless as the purse of Fortunatus, and may he dip into it unsparingly for the delight and benefit of his species! [London New Monthly Mag.

From the Annals of Philosophy.

*Biographical Account of M. Werner, late Professor of Mineralogy at Freiberg.**

Abraham Gotlob Werner was born on Sept. 25, 1750, at Wehran am Quieß, in Upper Lusatia. Endowed by nature with unusual quickness of understanding, and

with the power of extensive observation, he was also gifted with a happy faculty of arrangement, a lively imagination, and a retentive memory. In conformity to the wish of his father, who had become the factor of a Count Solmischen Eisenhammer, Werner devoted himself from early youth to the same occupation. He received the rudiments of his education at the school of the Orphan Hospital at Buntzlau in Silesia, and was afterwards placed at the Academy of Freiberg; and from the last mentioned place he went to study at Leipzig. Here, and during his whole life, Werner struggled to acquire scientific information; and while he gained for himself reputation for his proficiency in general literature and the languages, he continued severe in judging of himself, and lenient and indulgent towards others, mild, affectionate, and generous; he was a true patriot, and a citizen of the world in the most honourable sense of the word.

It was at Leipzig, in the year 1774, that Werner, already more distinguished for his study of natural history than for that of the law, laid the firm foundation of those opinions relative to oryctognosy, of which he was the contriver. He supplied, instead of the confused mass of which this species of knowledge had hitherto consisted, those compendious descriptions, delivered in happily chosen, expressive, scientific language, which have accomplished the difficult end of placing in an intelligible point of view the principles of this science. The new method, from the comprehensive nature of its illustrations, soon became extensively known and adopted; and in 1780, Werner, in the translation of the system of Cronstedt, which he then published, explained, in a connected shape, his method of classification, and his opinions in general, illustrated and improved, since their first origin, by many alterations and additions. He published in 1791 a second account of his doctrines, after having received considerable additions to his mineralogical knowledge from his being employed in drawing a catalogue of the collection of minerals formed by Mr. Pabst, of Ohain.

In the year 1775, not long after he had commenced his career as an author, Werner obtained a permanent situation in the Academy of Freiberg, the earliest cradle of mineralogical science in Germany; and destined to flourish with renewed life in consequence of his labours. He was appointed, in addition to a professorship, superintendent of the museum, and here his

* Translated from “A Tribute to the Memory of Werner, by Charles Cæsar Ritter Von Leonhard,” read before the Royal Academy of Sciences at Munich, Oct. 25, 1817, and published in vol. xxiii. of Schwegger’s Journal.

active temper for investigation and observation obtained a wide field, and by his unrestrained and enthusiastic exertions, in spite of much opposition, he raised in his favour a strong party feeling, and general admiration. The attempts to persecute Werner,* and to impede the introduction of his doctrines, had quite the contrary effect to what their authors intended, and contributed essentially to hasten the result so favourable and so brilliant to him. The boundaries of the science were soon enlarged by the effects of his favourite labours: geognosy, reduced to an intelligible shape, a work entirely the creation of Werner, being considered henceforth as a part of the science. His theory of the periods in the formation of mountains, his researches respecting rocks, and the nature of their aggregation into the masses of which the crust of the earth is composed, his reflections upon the internal structure of mountains, his theory respecting veins, his doctrine of the formations, and of the origin of the later traps and volcanoes, will convey the name of Werner to the latest posterity. Geognosy, as he formed it, may be considered the philosophy of mineralogy, the fairest and most perfect half of the philosophy of unorganized nature. Every question which is started on this subject, all objects connected with the structure of the earth, and which relate to the masses of which it is composed, are an appropriate exercise for an enlightened mind. Leibnitz, Descartes, Bacon, Burnet, Laplace, and all illustrious men of ancient and modern times, have respected this laborious species of research.

Werner laboured more by his lectures than by his writings, for he considered that

* Among these may be classed the labours of Veltheim, Heinitzen, and others; viz. Veltheim's essay, with remarks on the old and new nomenclature of minerals, Helmstadt, 1793, a work deficient in argument; next comes the attack which Mr. Chenevix hazarded against his preceptor, and which does not possess much merit, published in the *Annales de Chimie*, 1808, tom. 65. p. 11. 113 et 225. The reply to this is contained in a letter from D'Aubuisson to Berthollet, *Annales de Chimie*, 1809, tom. 69. p. 155 et 228; also in Thomson's observations in answer to M. Chenevix's attack upon Werner's mineralogical method, *Annals of Philosophy*, vol. i. p. 245. Still less conclusive are the objections of the deceased Estner, entitled, "Unbiased Thoughts respecting Werner's Improvements in Mineralogy," Vienna, 1790. Compare these with what Karsten has said on the opposite side, entitled, "Upon Werner's Improvements in Mineralogy, occasioned by the Abbe Estner's unbiased Opinions," Berlin, 1793.

the numberless works on mineralogical science, which he had consulted, had misled rather than instructed him, their authors appearing as if certain that the utmost extent of what was known on this subject was too imperfect for his attention. Science, however, has cause to rejoice, that among the finished papers of Werner, which he bequeathed at his death to the Academy of Freiberg, many well arranged manuscripts have been found, the publication of which fine legacy remains anxiously to be hoped for.

While the science which Werner had imposed on himself as a law continued on his part, his doctrines, so far as they were known, were pirated by others; and (unchecked by the circumstance of Werner continuing by frequent changes and improvements to separate still further his opinions from theirs,) we have seen ourselves inundated with works relative to his theory, the authors of which did not follow the ideas of their preceptor, however numerous and enlarged they might be, but permitted themselves to indulge in speculations of their own with the most unrestrained freedom; so that along with what is useful of Werner's, we possess much of what is foreign to him; and as none of these authors have followed Werner's doctrines in their entire and original purity, none of them possess great value, nor bear the absolute marks of his authority; while, on the contrary, he has opposed the opinions contained in many of them by strong and decided arguments.

In England and Italy, where, previous to the time of Werner, mineralogical researches had been less ardently prosecuted than in Germany, the new doctrines very soon found advocates. Kirwan adopted his method, as well as many other proselytes from the established system. Hawkins, Mitchell, and Weaver, formed part of the new school, and the latter published a meritorious translation of his work upon the external characters of minerals; and lastly, Prof. Jameson of Edinburgh, received his education at Freiberg.

On the side of Italy, Napione extended the doctrines of his master; and in Denmark, the labours of Wad and Esmark procured him approbation and followers.

Brochant came from France to receive instructions from Werner, and returned loaded with knowledge to his country; and while he attained the praise of founding a new school, had nearly received the punishment of exile from his native land.

After Brochant, other advocates of the

school of Werner arose in France; but their services to the cause will not here detain us, with the exception of D'Aubuisson, who was the first who communicated to the public a just account of several of Werner's doctrines.

In order to be as concise as possible relative to the progress of the Wernerian doctrines in other foreign countries, I shall only relate that in Spain and America they made progress in consequence of the assertions of Herrgen and Del Rio; and that in Portugal, the disciples of this school were headed by Andrada, and the system extensively published and adopted.

Hitherto, in speaking of Werner, we have only noticed his labours in geognosy and oryctognosy, the sciences in which he was destined to render himself immortal, and have spoken of his opinions on these subjects, through which, and his researches relative to the structure of the globe, he so anxiously endeavoured to direct the attention of his followers to the different branches of the science of mineralogy.

The most remarkable incident, however, in the later years of Werner, was his journey to Paris in 1802, occasioned by his zeal in the cause of science, and the wish to confer with the naturalists of the French capital most devoted to his cause. This modest and fine feeling, learned man, although not insensible to the value of external honours, found himself on this occasion overwhelmed with multiplied proofs of the most flattering distinction, inspired by the disinterested knowledge of his worth.*

The cabinet which Werner left behind him,† (the result of a life spent in the laudable pursuits attending the formation of this collection, and the sacrifices which had

attended its formation, afford convincing proofs of his earnest exertions in the cause of science) has a double value, derived in the first instance from the great merit of the individual who made the collection, and in the second, from the scientific knowledge displayed in the arrangement of the whole. This valuable collection is now in the possession of the Academy of Freiberg, to whom Werner left it in the most disinterested manner.‡

Werner belonged to most of the learned societies both of his own and of foreign countries. Our Royal Academy of Sciences possessed him as a member since the year 1808. A society founded in Edinburgh assumed his name as an honourable distinction,§ and not long before his death he was constituted president of a society founded in his native country for the encouragement of that science, which lay under such obligations to him.||

Thus lived Werner, and thus he laboured: his sacrifices on account of science made him renounce the happiness of becoming a husband, and a father, although from his amiable disposition, his cheerful and serene temper, he seemed particularly formed for the pure enjoyments of domestic life. Surrounded by a numerous circle of his friends and scholars, previous to his approaching dissolution, he freely communicated the whole of his knowledge, and intimately and confidentially laid open his whole mind. Steadily true to the fulfilment of his duties, he was seen at the extremity of old age possessed of continued youthful vigour, full of the clearest views and the brightest conceptions.

The estimable king of Saxony, the friend and patron of merit in whatever situation

* Werner was freely admitted every where at Paris, and courted wherever his mineralogical knowledge could be appreciated. It is related that in the laboratory of the School of the Mines, when Descotils was occupied in an elaborate analysis of some specimens of iron ore, he excited astonishment by determining their standard and chemical constitution by a cursory examination of their external characters, in surprising correspondence with the latest analyses of them by the chemist.

† The collection is divided into six parts; viz. precious stones, oryctognosy, a collection of show, one of petrifications, and one illustrative of the external characters of minerals. The collection of precious stones is one of surprising value and rarity. We have had only a very imperfect account of these collections, but it is to be hoped that we shall soon be put in possession of an ample description of them by some experienced individual.

‡ An offer of 50,000 dollars was made from England for 100,000 of these specimens, but the patriotic proprietor left them for 40,000 dollars to the Academy of Freiberg. Of this sum he sunk 30,000 dollars in an annuity for himself, and an only sister; neither of them had any family; and the remainder of the money received from the Academy for his minerals, he left to it at the death of himself and his sister. He also left his exquisite collection of books and medals to the Academy for 5000 dollars. This contained 6000 Greek and Roman medals.

§ The Wernerian Natural History Society. The seal of this society has engraved upon it a likeness of Werner.

|| The Mineralogical Society established at Dresden in the course of the winter of 1816 and 1817. The king of Saxony has in every way given encouragement and protection to this society, and has granted it a particular seal and diploma.

it may be found, distinguished him as a rare example of worth.*

Posterity will form a just and true conception of his high worth, and mankind will experience a great loss in his death. Werner did not exclusively belong to Saxony; he was the benefactor of the world at large.

List of Werner's Writings.

Werner published at Leipzig, in 1774, *An Essay on the External Characters of Minerals*. This work was translated into French, and published at Paris, in 1790, by the translator of the *Memoires de Chimie de Scheele* (Mlbe. Picardet).

In 1780, he published at Leipzig, *A Translation of Cronstedt's Essay on Mineralogy*, from the Swedish, with Notes, and *An Account of the External Characters of Minerals*.

In 1791 and 1792, he published *A Full and Systematic Catalogue of the Cabinet of Mr. R. E. Pabst, of Ohain*, which he drew up, and edited in two volumes. This is, to appearance, the description of the cabinet of a private individual, but its contents prove that Werner took this opportunity to describe how a collection ought to be arranged and described. Pabst, of Ohain, was an amateur naturalist, who, from holding an official situation under the Saxon government, possessed opportunities of collecting the rarest and most curious mineral specimens. After his death, his heirs, in 1786, wished to give this collection a permanent value, and proposed that Werner should undertake its arrangement and description. In completing this work, Werner followed the arrangement in use in describing a cabinet of natural history; and as he spared no pains in giving an elaborate account of the collection, he composed a work calculated to be of the utmost service to science. The *Journal des Mines*, vol. ii. chap. 91. p. 73. gives a copious summary of this work.

* Werner received a particular proof of this distinction in being decorated with the Grand Cross of the Royal Saxon Order of Merit. His birth has of late also been celebrated in public; and we are allowed to hope that through the exertions of the Prussian Chevalier Gerard, we shall possess, in a well executed bust of Werner, by Posch of Berlin, a monument of him in a durable shape. In order to form a calculation of what may be the price of this bust, which will be sold for prime cost, the number of those who wish to be possessed of a cast is anxiously waited for, and it is hoped that the admirers of Werner will consider this invitation as opportunity. The bust will be cast at the foundry of Gleiwitz, in Silesia.

At Dresden, 1787, he published *A Short Classification and Description of Mountains*.

At Freiberg, in 1791, he published *The New Theory of the Formation of Veins, with Remarks on the Formation of Mountains*, particularly those in the Neighbourhood of Freiberg. Translated into French, with notes, by D'Aubuisson. Paris, 1802.

In the *Miner's Journal*, he published *An Essay on the Basaltic Formations of Scheibenberg Hill*, together with the controversial Correspondence with Mr. Voight on this Subject. *A History of the Characters and a Chemical Investigation of Apatite*. *Vorkommendes Basaltes auf Kupper, vorzuglich hoher berge*. *Remarks on Evermain's Description of a Basaltic Mountain, called King Arthur's Seat, near Edinburgh; and its close Resemblance to Scheibenberg Hill*. *Notes upon a Letter of Widenmans, relative to some Hungarian Fossils*. *Remarks on a Letter of the Chevalier Napione, relative to the Tuberg Iron Mountain*. *Description of the External Character of Prehnite, with some Observations upon the Name which it has received, and additional Remarks upon the System of naming Objects in Natural History from Individuals*. *Description of the External Characters of Kyanite*. *Description of the External Characters of Olivin, Chrysolite, Beryl, and Chrysoberyl, with some additional Remarks on the Gradations of the First*. *Remarks on the Traps of Sweden, with some Observations on the Origin and Application of this Term, and what may probably be its future Fate, and a short Attempt to determine the precise Species of Mountains to which it may in future be applied*.

In Hoepfner's *Helvetic Magazine of Natural History*, he published *An Attempt to explain the Origin of Volcanoes, from the Inflammation of large Beds of Coal, and the Connexion of this Circumstance with the Formation of Basalt*.

In Von Crell's *Chemical Annals*, *On the Buzzen-Wacken of Joachimstal*. 1789. Band 1, 8, 131.

In the *Magazine of Medicine and Natural History*, *A Description of a new Ore of Silver (Arsenical Silver)*. *A Letter from Leslie, relative to a singular Specimen of Crystallized Gypsum found in an old Fortification*.

FROM THE NEW YORK STATESMAN.

Salina, July, 1820.

I have returned to this place to look at the great manufactories of salt, which are

conducted on a very extensive scale. The salt is not only better, but cheaper than any in the United States; its superiority in these essential respects, arises from the strength of the water, the cheapness of fuel, the facility of water conveyance, and improved skill in operation. It is supposed that five millions bushels of salt are consumed annually in the United States, of which three millions are imported, and two made at home; and half a million is manufactured at this place.

The salt springs are situate in a marsh, and by digging a pit any where in it, salt water is found. The brine is forced up by hand pumps and hydraulic machines, and conveyed by leaders to the chaldrons. One man can attend a block of ten kettles. The process of manufacturing is simple. The water is exposed to a hot fire, and when it is sufficiently boiled down, the salt is taken out by a large ladle, and put into a basket, from whence the water exudes into the kettle. The ladle is kept during the whole process in the chaldron, and it is said collects all the feculent matter.

The salt is of three kinds; common, rectified, and basket or table—and salt is made at Montezuma by solar evaporation. Fifty-six gallons of water make a bushel of salt. It is said that it takes 100 gallons at the great Kenhawa river, and 300 at the Coneaugh works, near Pittsburgh. Wood can be procured at 62 cents a cord, and two cords will supply a block of chaldrons for a day.

The common salt is very excellent, the rectified extraordinarily so. The best kind of the latter is put up in baskets of 3 lbs. which cost each 12½ cents.

It is supposed that the salt springs originate from subterranean rivers running over mines or beds of fossil salt, and that as Salina is elevated 100 feet above the Oswego falls, which are composed of sand stone, that the mineral can be found at that depth. Many phenomena all over this country, demonstrate the former presence of the ocean; and it is supposed that a line of country considerably above the Cayuga marshes, and the Salina plains, has been a sea shore. On the recession of the ocean, those great hollows must have retained vast quantities of salt water, which would be converted into salt by solar evaporation, or subterranean heat. But it is evident that this theory is not commensurate with all the facts in the case. Salt springs are found as far east as forty miles, and all over this western region.

In 1806 and 1819, years of great drought,

the water was very weak. On what principle can we account for this extraordinary fact? There never has been the least failure of water.

I saw on the salt marsh, the *samphire* of the sea coast. Tournefort made the same observations in his voyage to the Levant. "There are," said he, "some small risings of fossil salt in Georgia. This salt, which crystallized in bottoms where rain water stagnates, mixes with the moisture of the earth, and causes it to produce such plants as love the sea shore; such as *salt wert* and *limonium*. I observed the same thing upon the mountain of Cardonna, situate on the frontiers of Catalonia and Arragon, which is nothing but a prodigious mass of salt."

The country about the salt works is said to be unhealthy. The same evil has been noticed in other places. The spots in Greece where the *malaria* is most noxious, are salt works and rice grounds.

I have no doubt but salt can be procured at Salina for 18 cents a bushel, including the duty of 12½ cents. It can be transported to Albany for 6 or 7 cents more when the canal is finished. The duty on imported salt is 20 cents per bushel. The average price of salt at New York, is from 40 to 50 cents per bushel. Whether the foreign duty is continued or not, the salt of Salina can always be sold cheaper at the head of the sloop navigation of the Hudson, than foreign salt. Every individual in the United States consumes at the rate of half a bushel of salt directly or indirectly. Supposing the consumption in the aggregate to be 5,000,000 of bushels, and the population 10,000,000, then that portion of inhabitants which is comprehended in the supply from Salina, will not have to pay more than from 12½ to 25 cents for the annual consumption of that article.

I conceive the salt manufacture of Salina as the most important establishment in the United States. It renders the nation so far independent of foreign aid: millions of bushels can be made. Without the canals its usefulness would be very circumscribed; but now the facilities of inland navigation enable the conveyance of this indispensable mineral to the remotest regions of the west, and to the shores of the Atlantic ocean.

From the Charleston Courier.

ELECTRICAL EQUILIBRIUM.

To the Friends of Science.

The subscriber is induced to add to the

remarks made in his *Essay on the Yellow Fever of 1817*, and in those published in 1819, with regard to a *deficient electricity in the atmosphere*, constituting *one among the essential causes*, which must exist before the *gaseous poison* is capable of exerting its full influence in generating, and afterwards supporting, **YELLOW FEVER INFECTION**—the following observations, the result of four summer seasons, which have afforded still further proofs in confirmation of the doctrine advanced and supported in those essays, and have led to the advancement of the following propositions and laws:

Proposition 1st.—I consider the **ELECTRIC FLUID**, emphatically termed the **SOUL OF THE WORLD!** as the *generic source* of the great class of *imponderable bodies*, light, heat (*caloric*) and magnetism. Neither of these admit of any thing like a critical examination of their gravities, as they are not known to affect the most delicate balance. They are, however, known to exist from certain phenomena peculiar to them, and to be subject to certain laws, productive of such phenomena, as tend to characterize and distinguish their general and specific properties.

Prop. 2d.—I consider the electric fluid to be the parent source of *oxygen*;* or, in other words, the electric fluid is that principle in nature which *generates*, and after, *modifies*, light, heat and magnetism, among the *imponderable bodies*; and among those that are *ponderable*, oxygen, together with certain of the *respirable gases*.

Prop. 3d.—I consider the electric fluid to be governed by the following laws, which may be considered as so many established laws of nature: the sun being the centre of its emanation, or of its action, in the solar system, and always *positive*.

Law 1.—An *electrical equilibrium* exists in all those sections of the globe, where there is no more than the *natural and proper quantity of electricity*, in the atmosphere, and on the face of the earth; and its existence is proved, by the tranquil and healthy state of all nature.

Law 2.—There can be no *electrical equilibrium* in any section of the globe, or in those places where the fluid exists either in excessive or deficient quantities in the atmosphere, nor while the excess or deficiency remains.

Law 3.—The electric fluid is in *excess* when any one part of the globe has acquired more than its natural or proper quantity; and the support of an *equilibrium*

being universally a *fundamental law of nature*, the effort to restore an *equilibrium* produces the phenomena of “thunder, lightnings, earthquakes and whirlwinds.”†—While the effect of this excess of electricity in the atmosphere, and on the animal economy, is evidenced by an inflammatory constitution of the atmosphere; and in the animal economy, the blood is *superoxygenized*; as is evidenced by the type of the prevailing diseases, which are generally inflammatory, and most commonly epidemic, such as *Catarrhus Epidemica*, &c.‡ And, it necessarily follows, that when this inflammatory constitution of the atmosphere is suddenly changed, by a cotemporaneous and superabundant fall of rain, as happened in the year 1819, this excessive moisture, diluting the excess of electricity, a *deficiency* takes place, and the *equilibrium* not being restored, inflammatory diseases degenerate very rapidly into *Typhus*. This fact, I believe, can be substantiated by every observing physician in the city.

Law 4.—The electric fluid is *deficient* whenever any section of the globe, or any part of matter, has less than the natural or proper quantity diffused through the atmosphere, and over such part of matter, as happened in the year 1817.—Particularly noticed in the *Essay on Yellow Fever*, page 101.

REMARKS.

The *electric equilibrium* may be impaired by one or many causes, and the deficiency is evidenced in like manner. 1st. Excessive rain, as in 1819. 2d. Heat above the summer temperature, accompanied with excessive rain. 3d. Particular winds impair it. In our city, northeast, east, and southeast winds, are found injurious to the fluid. While, on the contrary, its activity is awakened by those from the north, northwest, and west. And its activity is impaired, 4th, by the plentiful evolution of

† Brydone's Tour through Sicily and Malta, vol. ii. page 98.

‡ An ingenious and learned tourist says “Consumption is produced by too much oxygen in the blood.”

N. B.—It may be worthy of remark here, that on the 7th of the present month, an *electrical deficiency* began to evidence itself in our city, which was inundated on the 9th and 10th. Five days afterwards, the *Yellow Fever* was announced; on the 19th, the wind began to change, and by the 20th it blew fresh from the north; the activity of the fluid awoke up, and the *Yellow Fever* took a hasty leave, to make room for an *Epidemic Catarrh*. This additional fact cannot be denied by any one, for it must be obvious to all.

* Inquiries into the Principles and Properties of the Electric Fluid, pages 193, 212, &c.

certain noxious and deleterious gases, the effect of the putrefaction of dead bodies, either animal or vegetable, or of both combined. 5th. Locally, it is rendered deficient in cities and towns, or particular sections thereof, from peculiar and locally existing causes; which have been already sufficiently noticed by most medical writers. And 6th. In camps, jails, hospitals and ships, from similar causes.

A deficient electricity is known to exist, whenever extraordinary exertions are obliged to be made, in order to procure fluid from a good electrical apparatus.—When the proper quantity is diffused through the atmosphere, the fluid is collected readily, and with no more than common exertion.

During the existence of an *electrical equilibrium*, the atmosphere retains its due degree of elasticity and vitality; being neither too rare nor too dense for the healthy support of nature. This fact is established by the health of our city during the summer of 1818.

Prop. 4th.—It is not possible, according to the foregoing laws, and during the existence of an *electrical equilibrium*, for disease, as an epidemic, to take place. (I mean only those diseases that depend on atmospherical agency for their generation and extension, and *not contagious diseases*.) *Because*, the causes which generate and support epidemic diseases, depend altogether on an excess or deficiency of the electric fluid in the atmosphere, before they are capable of exerting their deleterious influence, first on the atmosphere, and then on the animal economy, as observed *Law 3*. And *because*, 2d, the electric fluid in *equilibrium*, that is, in its proper quantity, purifies the atmospherical air; affording the proper quantities of *oxygen*, and dilutes or dissipates the *noxious gases*, which would otherwise give rise to that *infectious state of the atmosphere*, which has been long known to favour the generation and to support the extension of *Epidemic Yellow Fever* in all the tropical climates; and these observations go far to the establishment of the following:

Law 5.—"As long as an *electrical equilibrium* is supported in the atmosphere, the remote causes of fever, though existing, are in consequence of this *equilibrium*, incapable of exciting disease of higher grades than *simple synocha*, a mild intermittent, remittent, &c."*

J. L. E. W. SHECUT.

* Medical and Philosophical Essays, p. 215.

Hussein, captain pasha, had a Jew physician who called in one day to relieve him from an aching tooth; the clumsy fellow unfortunately drew the wrong one, but as the agony of extraction drowned the pain for a time, he got away undetected; the pain soon returned, and a few days after, Hussein meeting the man on the Bosphorus, stopped him and had every tooth in his head drawn.

Peach Trees.—We have been informed that by planting onions around peach trees, they may be effectually preserved from the ravages of destructive insects.

Poetry.

HYMN.

FROM MILLMAN'S FALL OF JERUSALEM.

Even thus amid thy pride and luxury,
Oh Earth! shall that last coming burst on thee,
That secret coming of the Son of Man.
When all the cherub-thronging clouds shall shine,
Irradiate with his bright advancing sign:

When that great Husbandman shall wave his fan,
Sweeping, like chaff, thy wealth and pomp away:

Still to the noontide of that nightless day,
Shalt thou thy wonted dissolute course maintain.

Along the busy mart and crowded street,
The buyer and the seller still shall meet,
And marriage feasts begin their jocund strain:
Still to the pouring out the cup of wo;
Till Earth, a drunkard, reeling to and fro,
And mountains molten by his burning feet,
And Heaven his presence own, all red with furnace heat.

The hundred gated cities then,
The towers and temples nam'd of men
Eternal, and the thrones of kings;
The gilded summer palaces,
The courtly bowers of love and ease,
Where still the bird of pleasure sings;
Ask ye the destiny of them?
Go gaze on fallen Jerusalem!
Yea, mightier names are in the fatal roll,
'Gainst earth and heaven God's standard is unfurl'd,

The skies are shrivelled like a burning scroll,
And the vast common doom ensepulchres the world.

Oh! who shall then survive?
Oh! who shall stand and live?
When all that hath been, is no more:
When for the round earth hung in air,
With all its constellations fair
In the sky's azure canopy;
When for the breathing earth, and sparkling sea,
Is but a fiery deluge without shore,
Heaving along the abyss profound and dark,
A fiery deluge, and without an ark.

Lord of all power, when thou art there alone
On thy eternal fiery-wheeled throne,
That in its high meridian noon
Needs not the perish'd sun nor moon:

When thou art there in thy presiding state,
Wide sceptred Monarch o'er the realm of
doom:

When from the sea depths, from Earth's dark-
est womb,

The dead of all the ages round thee wait,
And when the tribes of wickedness are strewn

Like forest leaves in the autumn of thine ire:
Faithful and true! thou wilt save thine own!

The saints shall dwell within th' unharming
fire,

Each white robe spotless, blooming every palm,
Even safe as we, by this still fountain's side.

So shall the Church, thy bright and mystic
bride,

Sit on the stormy gulf a halcyon bird of calm.

Yes, 'mid yon angry and destroying signs,

O'er us the rainbow of thy mercy shines,

We hail, we bless the covenant of its beam,

Almighty to avenge, Almighty to redeem!

Record.

Boston, October 3.

Yesterday an adjourned meeting on the subject of the proposed tariff, was held at Faneuil Hall—Hon. William Gray, chairman, and William Foster, jun. esq. secretary.

A long and interesting report was read from the respectable committee appointed at a former meeting—which concluded with the following resolves:

Resolved, That we have regarded with pleasure the establishment and success of manufactures among us—and consider their growth, when natural and spontaneous, and not the effect of a system of bounties and protection, as an evidence of general wealth and prosperity.

Resolved, That relying on the ingenuity, enterprise and skill, of our fellow citizens, we believe that all manufactures adapted to our character and circumstances will be introduced and extended, as soon and as far as will promote the public interest, without any further protection than they now receive.

Resolved, That no objection ought ever to be made to any amount of taxes equally apportioned and imposed for the purpose of raising revenues necessary for the support of government—but that taxes imposed on the people for the sole benefit of any one class of men are equally inconsistent with the principles of our constitution and with sound policy.

Resolved, That the supposition that until the proposed tariff or some similar measure be adopted, we are and shall be dependent on foreigners for the means of subsistence and defence, is, in our opinion, altogether fallacious and fanciful, and derogatory to the character of the nation.

Resolved, That high bounties on such domestic manufactures as are principally benefited by that tariff, favour great capitalists, rather than personal industry or the owners of small capitals, and therefore that we do not perceive its tendency to promote national industry.

Resolved, That we are equally incapable of discovering its beneficial effects on agriculture, since the obvious consequence of its adoption would be, that the farmer must give more than

he now does for all he buys, and receive less for all he sells.

Resolved, That the imposition of duties, which are enormous, and deemed by a large portion of the people to be unequal and unjust, is dangerous, as it encourages the practice of smuggling.

Resolved, That in our opinion, the proposed tariff, and the principles on which it is avowedly founded would, if adopted, have a tendency, however different may be the motives of those who recommend them, to diminish the industry, impede the prosperity, and corrupt the morals of the people.

James T. Austin, esq. and the Hon. Daniel Webster, addressed their fellow citizens in favour of the report and resolves, in speeches which were distinguished for closeness of argument, variety of illustration, and abundance of fact.

The report was then accepted, and the resolves recommended by the committee unanimously passed.

A vote of thanks to the Hon. Mr. Otis, of the Senate, and to those members from this state, in the House of Representatives of the United States, who opposed the new tariff, was unanimously agreed to.

It appears from a Canadian paper, that considerable alarm prevails in that province from an apprehension that parliament may so alter the duties on lumber as to admit the competition of the north of Europe.

It is said in an eastern gazette, that the line to be run by the commissioners between the British and American possessions, will vary considerably from the common opinion of the boundary, and that "the Americans will have a large accession of territory between the St. Croix and the St. Lawrence."

Alexander McNair has been chosen the first governor of Missouri. The number of votes given in, was nearly ten thousand.

The votes in Indiana at the recent election for member of Congress, were between sixteen and twenty thousand.

The United States Circuit Court, at its late session at Columbus, Ohio, directed an attachment to issue against Ralph Osborn, auditor, and John L. Harper, for disregarding the injunction issued last September, forbidding the collection of the tax imposed by the state. The state law is considered a nullity.

In reply to a demand of the Spanish government that the sovereign pontiff should authorize the bishops of Spain to secularize the ecclesiastics belonging to the religious order, his holiness replied that it was contrary to the discipline of the church, and would only grant that they may be placed in the class of curates during five years, after which time they should return to their convents.

Red River Copper Mines.—We learn from Alexandria, Louisiana, that a company under the direction of a distinguished retired officer of the United States army, has been formed, for opening and working copper mines on the Red River, a few miles beyond the boundary of the United States. [Union.]

A report on the finances of the city of New Orleans, estimates the expenditures of the current year at \$195,597, and the revenue at \$167,130. The sources of revenue are, rents \$40,000; tavern and boarding house licenses \$20,000; wharfage \$23,245; real estate and slaves \$16,000; notes for lots sold \$42,727; duty on prisoners \$1,500.

Among the expenditures, are city watch \$17,760; salary of mayor \$4,000; clerk and other officers \$6,500; six police officers \$6,000; two overseers of chained negroes \$720 each; maintenance of chained negroes \$2,458; New Orleans Library \$27.50; box at the theatre for the mayor \$40; lighting the city \$9,310; cleaning \$5,997; printing \$1,237, &c.

Copy of a Letter received from the House of the American Consul, at Genoa, dated 15th August, 1820.

Ere this reaches you, you will, no doubt, have received the official decree of the French government, for countervailing the act of Congress of 15th May last, imposing a new tonnage duty, &c. &c. As this decree has been evidently enforced by a spirit of retaliation, if not resentment, we are rather apprehensive here that measures thus conflicting may tend to aggravate more than conciliate, and remove the causes which occasioned them. The system of restriction having originated with France, we might have reasonably expected a relaxation on her part, but instead of which we find her rigidly persevering; and as both nations appear to be reciprocally tenacious of their rights in this particular, it would seem that neither party are over anxious to abandon their positions, however opportune the moment for amicable adjustment may be. During the continuance of this state of things, the enormous tonnage duty imposed on vessels of both nations, must necessarily prohibit any further direct intercourse between them, which will naturally suggest the expediency of resorting to indirect channels for the attainment of this most lucrative and highly important branch of commerce. Lest you, like a great portion of the merchants of the United States, should not have made yourself acquainted with the extensive importance of this great commercial emporium, we shall here attempt to point out a few of its many peculiar resources, preparatory to our recommending it as the most eligible position from whence this general interchange of commodities may be effected. Genoa, late the capital of the Ligurian republic, (but now attached to the dominions of his Sardinian Majesty) has ever been celebrated for its beautiful situation, and magnificent buildings, as well as for the richest and most commercial city in the Mediterranean. It possesses a very safe and commodious harbour, with depth of water sufficient for the largest ships of the line. Its situation being in the cen-

tre of the Mediterranean, and directly in the vicinity of the south of France, renders it not only the most accessible port to Marseilles, for the supply of that rich section of country, and its many manufactories, but affords an easy communication with the Levant, Adriatic, Italian and Spanish ports, with all of which it carries on a very extensive and advantageous traffic. In addition to the immense consumption of the state and dominions of his Sardinian Majesty, which are now said to contain five millions of souls, it supplies all the interior of Lombardy, Switzerland, and their neighbouring countries with the desired commodities and luxuries of life. Hence you may conceive the quantities of American and colonial productions imported here must be immense. The articles of tobacco, cotton, codfish, indigo and hides, are much consumed here, and most generally meet with quick and profitable sales. Colonials of every description always demanded. The exports are of great variety and immense extent, for besides the Levant goods received here in remittance, the produce and manufacture of the country form very important branches of our trade. The principal articles are sweet olive oil and soap, the qualities of which are much superior and cheaper than at Leghorn or Marseilles. Fruits, fresh, dried, and preserved, in great abundance. Pickles, of capers, olives, and anchovies. Silks, damasks, satins and velvets, the most esteemed in Europe. Paper of every quality and description. Rags, marbles, wrought and unwrought marble and chimney pieces, statues and alabaster ornaments, with a great variety of other articles, well adapted for the American and West India markets. The markets here offer, at all times, greater inducements than those of Leghorn and Marseilles, as in consequence of the importations hence, direct from America, being less frequent than at those ports. Orders are frequently sent from this for the purchase of entire cargoes either for speculation, or for the supply of the interior, which must clearly prove the advantages that would result from shipments direct from the United States.

Exchanges with all the capital cities in Europe, and bank business, is another very considerable branch of our commerce; failures are very rare, and our bankers are of such solidity, as to make their correspondence universally courted. In short, possessing a free port, where we can land and sell all kind of goods free of duty, with the benefit of transit, or free export for the same, as well as for the general productions and manufactures of the country, Genoa must, from her many peculiar and very superior advantages, outrival all her neighbouring ports, and become the great emporium of the Mediterranean.

By the late acquisition of all the Genoese dominions, his Sardinian Majesty has become a very considerable potentate. His army of regulars may be estimated at not less than 80,000 men, all fine disciplined troops. His navy, which he appears very ambitious to increase, consists now of two 64's, two fine frigates, six corvettes, 15 row galleys, and one 74 on the stocks.

[Nat. Adv.]

Patent Machine Paper of J. & T. Gilpin, Brandywine.

Clark & Raser, Printers.